

**Michigan Department of Environmental Quality
Water Bureau
Counter Terrorism Technical Assistance and Training Grant
Water Sector Security Program Status Report**

November 2, 2009

I. Status Report

The following is the activity report of Michigan Department of Environmental Quality (MDEQ) Water Bureau (WB) Security Program supported by the U. S. Environmental Protection Agency (US EPA) Counter Terrorism Technical Assistance and Training Grant for the period from October 2008 through September 2009. One full time equivalent (FTE) is assigned the duties of Security and Emergency Response Coordinator (Coordinator) for the Water Bureau (WB). Additional Water Security activities are performed by WB staff on an individual basis.

II. Funding

As a result of the funding elimination of the US EPA Counter Terrorism Technical Assistance and Training Grant beginning FY 10, the Coordinator prepared a briefing by the Director of the MDEQ for the Michigan Congressional delegation requesting support for the drinking water program security funding. (Attachment # 1: MDEQ Director Congressional Delegation letter dated June 4, 2009)

III. Summary

The Water Sector is one of the 18 sectors described in the U. S. Department of Homeland Security (DHS) National Infrastructure Protection Framework (NIPF). The MDEQ WB participates in numerous Water Sector Security activities. Those activities include:

- A. Chair the Water Sector on the Michigan State Police (MSP) Michigan Infrastructure Coordination Committee (MICC) which includes both public and private infrastructure representatives.
- B. Membership on the American Water Works Association (AWWA) Michigan Section Water System Security and Emergency Management Committee (WSSEMC).
- C. Member of the MDEQ Emergency Management Team (EMT),
- D. Responsible for the implementation of the Part 5 rules, Spillage of Oil and Polluting Materials, which deals with containment and emergency response issues.
- E. Maintain Internet web pages for Water and Wastewater Security, and Emergency Response for Releases to Water web pages.
- F. Initiate and manage contract proposals for water security services using grant funds from US EPA, US Department of Homeland Security (US DHS), and other sources.
- G. Support the improved use of technology, e.g., Internet web sites, digital media, and real-time water quality monitoring in natural waters as well as in public water system (PWS) distribution systems.

IV. Initiatives and Contracts

A. Michigan Water and Wastewater Agency Response Network (MI WARN).
The Coordinator is a member of the MI WARN Steering Committee and has prepared the following Internet web site. The following is the universal resource locator (URL) for the WB MI WARN index:

http://www.michigan.gov/deq/0,1607,7-135-3313_23413-161032--,00.html .

The Coordinator presented on the status and value of being a MI WARN member at numerous conferences. As of March 1, 2009, the MI WARN web site was completed and functional. The MI WARN currently has 15 members.

B. Public Water System (PWS) Vulnerability Assessment (VA) Capital Improvement Plan (CIP) follow-up: CDM Michigan Inc (\$272,182).

Using a grant from US EPA, on September 15, 2006, a contract was entered with CDM Michigan Inc. to perform Vulnerability Assessment (VA) Capital Improvement Plan (CIP) follow-up with the 280 Public Water Systems (PWS) that were required to comply with the Bioterrorism Act of 2002. This is multi-year effort which involved three phases and expired on December 31, 2008.

Phase I included a site visit to assess the status of the water security needs of the PWS and any additional items that may have been identified subsequent to the completion of the VA.

Phase I determined that the total costs of the completed projects was approximately \$ 25 million, ranging from \$100 for locks to \$ 5 million for emergency generators. The number of participating PWS in Phase I was 203 with 45 opting out and 49 remaining. The number of projects identified in Phase I was 1,724 with 175 projects identified subsequently for a total of 1,899 security projects.

Phase II was a survey of the Phase I participants identifying VA CIP status including new water security projects identified and completed.

The number of participating PWS in Phase II was 125, with 2 opting out, and 76 not responding. The total number of projects identified at PWS was 1,724 with 175 new projects subsequent to the VA completion. Sixty-six percent or 1,137 projects have been completed, with 100 projects or 57 % of the new projects having been completed. Eight projects per PWS was the average number of capital improvement projects identified as a result of the VA and one new project was average per PWS subsequent to the completion of the VA. Phase II included telephone contact to determine if additional security needs have been identified and also those that may have been completed in the intervening time.

Phase III of the project determined via a survey (78 % participation of the Phase II participants) the status of water system emergency management and changes to the 'soft' security elements, eg, changes to policies, practices, and procedures and determined that the majority (56 %) revise their Emergency Response Plan (ERP) annually.

The MDEQ VA CIP project is being presented at the AWWA Water Quality Technology Conference and Exposition in Seattle, WA on November 15, 2009.

C. Train-the-Trainer (TTT) and Tabletop Exercises (TTX's): Patriot Services Inc. (\$79,485)

Using a grant from US EPA, a multi-year contract was entered with Patriot Services, Inc. on September 15, 2006 and expired on December 31, 2008.

This project consisted of two phases to improving public water and wastewater systems' response to all hazards, ie, natural and un-natural events on a population served priority basis. Phase I includes conducting 10 Train the Trainer (TTT) conferences on How To Conduct Table Top Exercises.

Phase II included conducting 30 Tabletop Exercises (TTX's). The goals of this project were to increase the awareness in the community of the PWS and wastewater treatment systems importance and their vulnerability, and for PWS and wastewater systems to determine that performing a TTX is useful and that they should conduct them on their own. Ten TTT's and twenty-five TTX's were conducted. In general, the utilities response is that the TTX is useful and that they should perform TTX's more often. The two most difficult conditions to deal with during the exercises were providing an alternate water supply and providing timely emergency analytical services.

D. Detroit and St. Clair rivers real-time monitoring

WB worked with numerous partners and has enhanced the Detroit and St. Clair rivers real-time monitoring program. Due to the nature and use of this key water resource, the Huron (Lake) to Erie (Lake) corridor (HEC), a system of real-time river monitoring has been established to provide improved water quality information on a continuous real-time basis as a protective response measure in the event of a chemical spill for PWS that have intakes in this corridor.

E. Future contract efforts

Additional contract efforts may be pursued in the future. However, due to reduced funding at both the State and federal level, contract services will have to be evaluated in accordance with funding.

V. Michigan Infrastructure Coordination Committee (MICC)

WB is a member of the Michigan Infrastructure Coordination Committee (MICC) which is coordinated by the Emergency Management and Homeland Security Division (EMHSD) of the Michigan State Police (MSP). The MICC is a part of the Michigan Homeland Protection Program of the Michigan Homeland Protection Board. Inasmuch as 85 % of critical infrastructure is owned by the private sector, the MICC is comprised of representatives from the private as well as the public sectors. Protective Security Advisors (PSA's) from the US Department of Homeland Security (DHS) also participate in the MICC.

VI. MDEQ Emergency Management Team

1. WB is a member of the MDEQ Emergency Management Team (EMT) and the Coordinator participates in routine EMT meetings. The EMT coordinates the MDEQ emergency management responsibilities. The EMT coordinates priorities and activities with the MSP and it's Emergency Management and Homeland Security Division (EMHSD), and Michigan Department of Management and Budget. The WB routinely updates its Emergency Management Plan and works with the EMT in the preparation of the DEQ Continuity of Operations Plan (COOP) and Continuity of Government (COG) plan.

2. WB advises all public water and wastewater systems have the Michigan Army National Guard (MANG) at Ft. Custer 51st Civil Support Team (CST), with their mobile laboratory and communications vehicles, listed in their Emergency Response Plans (ERP's) and Contingency Plans (CP's).

VII. Emergency Response for Releases to Water: Spillage of Oil and Polluting Materials: Part 5 Rules

1. The Coordinator is responsible for the statewide implementation, policy and guidance for the Part 5 Rules, Spillage of Oil and Polluting Materials. As a part of this responsibility, the Coordinator maintains a web site entitled Emergency Response for Releases to Water which is located at the following universal resource locator: http://www.michigan.gov/deq/0,1607,7-135-3313_23420---,00.html. The Coordinator, in consultation with district staff, reconciles issues and provides guidance and policies and procedures and responds to inquiries about site specific questions.

VIII. Threat Advisory Notification System (TANS)

A Threat Advisory Notification System (TANS) has been developed using the Internet email system. Articles in the American Water Works Association Michigan Section Water Works News have solicited Internet based email addresses from PWS. Internet email addresses have also been solicited from wastewater systems in the Michigan Water Environment Matters publication. Due to the nature of this kind of immediate threat advisory notification system, e.g., some systems do not have Internet/email services, the TANS is expected to be an iterative process. Not all water and wastewater systems will be able to be a part of the TANS for some

time and communications will occur by other methods. The TANS list includes 537 email addresses of PWS and wastewater systems and local county health department officials.

The following TANS notices were sent between October 1, 2008 and September 30, 2009:

- a. TANS # 42: 12/08: to forward a national agenda for drinking water.
- b. TANS # 43: 1/6/09: to forward the New Jersey Office of Homeland Security and Preparedness report entitled The Potential Terrorist Risk of Drinking Water Contamination.
- c. TANS # 44: 9/8/09: to forward the US EPA Influenza Fact Sheet for the Water Sector.

IX. MI Section : American Water Works Association: Water System Security and Emergency Management Committee (WSSEMC)

A. The Coordinator is a member of the Michigan Section of the American Water Works Association Water System Security and Emergency Management Committee (WSSEMC). The Coordinator chaired the ad hoc conference committee which included a speaker from the US Army TARDEC (Tank Automotive Research and Development Engineering Center) who presented on the Uniformed Services Portable Water Treatment Units which was well received. The WSSEMC held the sixth annual Water Security Summit (WSS) on 6/3/09 with 41 people in attendance and had local and national speakers and was generally evaluated as a successful conference. (Attachment 2: WSS brochure) All presentations were subsequently placed on the Water Bureau Security web page.

B. The WSSEMC has 5 goals:

1. Emphasize Contamination Warning Systems
2. Emphasize Table Top Exercises
3. Attend AWWA national Water Security Congress: water utility and Coordinator
4. Hold annual MI Section Water Security Summit conference
5. Develop Security Program Measurables

C. The following are synopses of WB articles prepared by the Coordinator that appeared in the American Water Works Association (AWWA) MI Section Water Works News (WWN) quarterly publication:

1. November 08 WWN: historic global population graph, MI WARN status, Tabletop Exercise recommendation for training for all hazards, and a terrorism scenario – cyber terrorism.
2. February 09 WWN: emergency management article citing that local actions are the most important in minimizing negative impact during an emergency, MI WARN status, all hazards scenario of a tornado destroying a well house, and CBRNE/cyber all hazards awareness.
3. May 09 WWN: MI WARN update and solicitation for members, all hazards CBRNE/cyber awareness, and a chemical contamination scenario.
4. Aug 09 WWN: MI WARN TTX article on the July 13, 09 conference, WARN status, all hazards CBRNE/cyber awareness with a biological contaminant scenario.

X. Technology/Internet

From January 09 to May 09, as a result of the initiative of the Coordinator, a student intern updated the following two web sites to new Content Management Application (CMA) statewide software: Water and Wastewater Security, and, Emergency Response for Releases to Water.

The following is the universal resource locator (URL) http://www.michigan.gov/deq/0,1607,7-135-3313_23413---,00.html for the Water Bureau Homeland Security webpage. The

Coordinator and student continually improved the web page to provide contemporary information and assistance to the Water Bureau regulated interests and partners.

As a part of the Emergency Response coordination efforts, the Coordinator and student updated the Water Bureau Emergency Responses for Releases to Water internet web site for the Part 5 Rules, Spillage of Oil and Polluting Materials, which is located at the following URL : http://www.michigan.gov/deq/0,1607,7-135-3313_23420---,00.html .

XI. Public Outreach

The WB coordinator has participated in numerous public outreach opportunities as indicated in the following:

- A. 10/8/08: AWWA MI Section MI WARN Cte meeting
- B. 10/10/08: MDEQ Emergency Management Team meeting
- C. 10/13/08: Michigan State Police Michigan Infrastructure Coordinating Committee (MICC) at General Motors Headquarters
- D. 10/15/08: Tabletop Exercise at Oakland County Drain Commission office for Commerce Township.
- E. 10/17/08: Site visit to the US Army Tank Automotive Research and Engineering Center Portable Water Treatment Systems Selfridge ANGB in Mount Clemens, MI.
- F. 10/22/08: Tabletop Exercise at the Ypsilanti Community Utility Authority wastewater treatment plant.
- G. 11/3/08: AWWA WITAF RFP review committee of 5 proposals for the National Strategic Plan for Emergency Water.
- H. 11/6/08: Attended AWWA MI Section Water System Security and Emergency Management Cte meeting.
- I. 11/7/08: Participated in committee conference call evaluation of 5 RFP's for the AWWA WITAF Emergency Water standards committee.
- J. 11/10/08: Planning committee with US EPA for the CSC contractor performed MI WARN tabletop exercise (TTX) conference for July 13, 2009.
- K. 11/12 & 14/08: Provided the Michigan State Police Emergency Management and Homeland Security Division the Tier I & II Water Sector facilities list for FY 09 DHS planning.
- L. 11/20/08: Performed a tabletop exercise at the Oakland County Sheriff Department.
- M. 12/11/08: Participated in a US EPA Region 5 Water Security Coordinators conference call.
- N. 12/17/09: Participated in conference call with the AWWA WITAF Emergency Water Committee
- O. 12/18/09: Finalized two Invitations to Bid (ITB's) for contractor performed tabletop exercises (TTX) and Emergency Response Plan (ERP) training for small communities (<3,300 population) which will be dependent on funding.
- P. 1/20/09: Student intern started and worked on the two web sites, Water and Wastewater Security and Emergency Response for Releases to Water. The Content Management Application is being changed and all web files need to be adjusted. The student intern will be working a couple of days per week from January 09 until graduation in May 09. Got student intern approved as an author and prioritized the web sites revisions and additions.
- Q. 2/3/09: Attended the AWWA MI Section Water System Security and Emergency Management Committee meeting.
- R. 2/17/09: Participated in US EPA contractor CSC conference call regarding the MI WARN TTX conference with the Lansing Board of Water and Light.
- S. 2/18/09: Attended the MI WARN Steering Committee and provided real-time internet web access and note taking.

T. 2/26/09: Held a Water Sector Committee meeting and discussed the US DHS NRF sector tier criteria, the MICC MSP directive for facility listing and the NJ Water International Terrorist Assessment

U. 3/2/09: Participated in MSP MICC conference call dealing with FY 09 DHS Tier I and II Water Sector facilities.

V. 3/5/09: Sent the contract summary of the Vulnerability Assessment Capital Improvement Project (VA CIP) to the participating drinking water facilities. [Attachment]

W. 3/11/09: Participated in the US EPA Region 5 Water Sector State Coordinators conference call.

X. 3/23/09: Participated in the US EPA CSC contractor planning conference call for the MI WARN TTX conference.

Y. 4/1/09: Conference call planning MI WARN TTX conference with contractor CSC.

Z. 4/14/09: Presented on MI WARN at the AWWA Michigan Section Spring Regional conference in Mount Pleasant.

AA. 4/23/09: Attended MDEQ Emergency Management Team (EMT) meeting. Participated in a conference call with the Emergency Water Committee of the AWWA WITAF.

BB. 5/5/09: Attended AWWA MI Section Water System Security and Emergency Response Cte meeting.

CC. 5/13/09: Attended MI WARN Steering Committee.

DD. 5/18/09: Participated in a MI WARN TTX planning conference call with US EPA contractor CSC.

EE. 5/20/09: Participated in an AWWA Security Committee conference call.

FF. 5/28 & 29/09: Participated in Incident Command System (ICS) 300 training with the Michigan State Police.

GG. 6/1/09: Participated in a MI WARN TTX planning conference call with US EPA contractor CSC.

HH. 6/3/09: Attended the MI Section of AWWA Water Security Summit and presented on the MI WARN. As Chair of the ad hoc agenda committee, got speakers for the conference.

II. 6/10/09: Participated in US EPA Region 5 Water Security Coordinators conference call.

JJ. 7/13/09: Conducted the MI WARN TTX conference with 45 people attending and conducted a TTX with the Lansing Board of Water and Light responding to a severe ice storm electrical and water system outage. (Attachment 3: MI WARN TTX agenda)

KK. 7/27/09: Participated in a MI WARN TTX planning conference call with US EPA contractor CSC.

LL. 7/30/09: Participated in an AWWA Project Steering Cte conference call for the National Strategic Plan for Emergency Water

MM. 8/18/09: Attended Michigan Section AWWA Water System Security and Emergency Management Committee meeting.

NN. 8/26/09: Attended MI WARN Steering Committee and drafted meeting minutes as secretary.

OO. 9/16/09: Participated in US EPA Region 5 Water Security Coordinators conference call.

PP. 9/28/09: Participated in the US DHS webcast on AWWA new voluntary preparedness standards for the private sector.

QQ. 9/29/09: Attended the Michigan Infrastructure Coordinating Committee (MICC) at the Jackson Headquarters of Consumers Energy and reported on the Water Sector.

RR. 9/30/09: Participated in the US DHS webcast on infrastructure protection on awareness and detection of homemade explosives (IED's).

XII. Future

The Water Sector and Critical Infrastructure Security Program is a function of funding. Existing security fund balances are being reviewed in order to determine the Water Sector Security program. For example, it is expected that federal legislation will place new requirements on the use of gas chlorine at drinking water and wastewater facilities under the Chemical Facility Anti-Terrorism Standards (CFATS) legislation which may provide for Water Sector security program funding.